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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/799,976	03/12/2004	Kristi Dhimiter Pance	18128	9032

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EXAMINER
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HAM, SEUNGSOOK

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 07/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/799,976

Applicant(s)

PANCE ET AL.

Examiner

Seungsook Ham

Art Unit

2817

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 5-7, 11-30 and 32-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 8-10 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 7/5/05, 8/19/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of Species III in the reply filed on 6/6/05 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 5-7, 11-30, and 32-42 have been withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Species I, II, IV-VIII, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 6/6/05.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Omum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 8-10 and 31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-46 of US Patent Application Publication No. 2004/0051603. Although the conflicting claims

Art Unit: 2817

are not identical, they are not patentably distinct from each other because the instant claims are the same except semantics. For example, the subject matter of instant claim 8 ("said dielectric resonators are positioned relative to each other so that they overlap each other in a plane parallel to said longitudinal axes") is read on the copending claim 1, "wherein said first and second resonators are alternate resonators positioned such that a field in one of said first and second resonators cross-couples directly to the other of said first and second resonators. Also, the copending claim 2 recites "the ends of each resonator are inverted...". The subject matter of instant claim 1 ("wherein said dielectric resonators are adjustable relative to each other") is read on the copending claim 28-46 ("a mounting member").

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-4, 8-10 and 31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 9-47 and 53-83 of US Patent Application Publication No. 2004/0051602. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are the same except semantics. For example, the subject matter of instant claim 8 ("said dielectric resonators are positioned relative to each other so that they overlap each other in a plane parallel to said longitudinal axes") is read on the copending claim 9, "wherein each resonator is longitudinally inverted relative to other resonators to which its field couples". The subject matter of instant claim 1

Art Unit: 2817

("wherein said dielectric resonators are adjustable relative to each other") is read on the copending claim 21.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 8-10 and 31 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Pance et al. (US '768)

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Pance et al. (fig. 7) discloses the identical dielectric resonator circuit.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by De Maron et al. (US '677) or Etienne et al. (US '655).

De Maron et al. (figs. 2a, 3-6) discloses a dielectric resonator circuit comprising: a housing 9; a plurality of dielectric resonators 6 are adjustable at least along their longitudinal axis S2 (see abstract); wherein the longitudinal axis defined orthogonal to the field of the fundamental mode, TE, of the dielectric resonator.

Regarding claim 31, De Maron et al. (fig. 3) also discloses means for adjusting the dielectric resonators relative to each other in order to adjust coupling strength between the dielectric resonators 12 (col. 8, lines 7-9, and col. 10, lines 26-39).

Etienne et al. (figs. 1 and 2) discloses a dielectric resonator circuit comprising: a housing 7; a plurality of dielectric resonators 1-3 are adjustable at least along their longitudinal axis X; wherein the longitudinal axis defined orthogonal to the field of the fundamental mode, TM<sub>010</sub>, of the dielectric resonator.

Regarding claim 31, Etienne et al. (fig. 3) also discloses means for adjusting the dielectric resonators relative to each other in order to adjust coupling strength between the dielectric resonators 8 (col. 3, lines 26-30).

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Delestre et al. (US '168).

Delestre et al. (figs. 2 and 3) discloses a dielectric resonator circuit comprising: a housing 1; a plurality of dielectric resonators 5 are adjustable at least along their longitudinal axis (col. 3, lines 20-27); wherein the longitudinal axis defined orthogonal to the field of the fundamental mode TE, of the dielectric resonator.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Maron et al. (US '677), Etienne et al. (US '655), or Delestre et al. (US '168) in view of Mayer (US '490) or Kishk et al. ("Conical Dielectric Resonator Antennas for Wide-Band Applications").

De Maron et al., Etienne et al. or Delestre et al. does not show the dielectric resonators being conical.

Mayer (fig. 1) discloses a dielectric resonator circuit having dielectric resonators having a conical shape for inexpensive manufacturing.

Kishk et al. (fig. 1) discloses dielectric resonators having various conical shapes.

It would have been obvious to one of ordinary skill in the art to provide conical shape dielectric resonators in the device of De Maron et al., Etienne et al. or Delestre et al. for inexpensive manufacturing as taught by Mayer (col. 2, lines 23-33) or for wider bandwidth as taught by Kishk et al. (see page 473, conclusion).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over De Maron et al. (US '677), Etienne et al. (US '655), or Delestre et al. (US '168) in view of Ishikawa et al. (US '397).

De Maron et al., Etienne et al. or Delestre et al. does not show the dielectric resonators are positioned so that they overlap each other in a plane parallel to the longitudinal axis.

Ishikawa et al. (fig. 11) discloses a dielectric resonator circuit having a plurality of dielectric resonators 20A-20E (fig. 9). Ishikawa et al. also discloses where the dielectric resonators (20A & 20B, 20B & 20C, etc.) are positioned so that they overlap each other in a plane parallel to the longitudinal axis.

It would have been obvious to one of ordinary skill in the art to position the dielectric resonators overlap each other (e.g., alternately disposed) in the device of De Maron et al., Etienne et al. or Delestre et al. as an alternate way to provide the plurality of dielectric resonators as shown by Ishikawa et al.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over De Maron et al. (US '677), Etienne et al. (US '655), or Delestre et al. (US '168) in view of Ishikawa et al. (US '397) as applied to claims 1, 2, and 8 above, and further in view of Tanaka (US '929).



The modified device of De Maron et al., Etienne et al. or Delestre et al. does not show the dielectric resonators comprised of conical shape and/or plurality of layers.

Tanaka (fig. 3) discloses a dielectric resonator comprised of plurality of layers and has a conical shape.

It would have been obvious to one of ordinary skill in the art to use the dielectric resonator of Tanaka as the dielectric resonators in the modified device of De Maron et al., Etienne et al. or Delestre et al. to suppress spurious response as taught by Tanaka (see abstract).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Delaballe et al. discloses a dielectric filter having movable dielectric resonators.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Art Unit: 2817

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seungsook Ham  
Primary Examiner  
Art Unit 2817

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